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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,057	09/22/2003	Mikiya Suzuki	KAW-0016	7838
23413	7590	09/01/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			HUGHES, DEANDRA M	
			ART UNIT	PAPER NUMBER
			3663	
DATE MAILED: 09/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,057

Applicant(s)

SUZUKI ET AL.

Examiner

Deandra M. Hughes

Art Unit

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 11-12 are objected to because they are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Appropriate correction is required.
2. Claim 4 recites the limitation "gain-slope compensation optical fiber" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner will examine claim 4 as if the limitation read "gain-slope compensation optical filter".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Hellman (US 2003/0185513 filed Mar. 26, 2002).

****The references made herein are done so for the convenience of the applicant. They are in no way intended to be limiting. The prior art should be considered in its entirety.**

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With regard to claims 1 and 5, Hellman discloses an optical module (fig. 4) comprising:

- an inlet side optical fiber (#12a);
- an optical filter (fig. 5a is an inset of the filter in fig. 4) optically connected (via GRIN #14) to said inlet side optical fiber;
- an outlet side optical fiber (#12b) optically connected (via GRIN #14) to said optical filter wherein said optical filter comprises a gain-slope compensation optical filter (#15b) *to flatten a gain slope of a gain of an optical amplifier* connected to (paragraph [0029]) said inlet side optical fiber or said outlet side optical fiber.

The Examiner considers the claim language identified in italics above to be a functional limitation, i.e. intended use. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. Since the structural limitations have been met by the prior art, the Examiner has reason to believe that the function limitation can be performed by the prior art structure. See MPEP 2114.

With regard to claims 2-3, Hellman discloses a dielectric thin-film filter comprising a grating (paragraph [0038]).

Claim 4 is being construed as a Product-by-Process claim. Since the claimed product appears to be the same as that of the prior art, applicant is required to come forward with evidence establishing an unobvious difference between the claimed

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product and the prior art product. *MPEP 2113 and In re Marosi, 218 USPQ 289, 292 (Fed. Cir. 1983).*

As best as they are understood, claims 11-12 are merely the method of operation of the apparatus as claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellman (US 2003/0185513 filed Mar. 26, 2002) in view of Ghera (US 6,611,641 filed Oct. 30, 2001).

Hellman does not specifically disclose rare-earth doped fibers connected to the inlet and outlet sides of the gain-flattening optical module. However, Ghera teaches rare-earth doped fiber (Erbium is a rare-earth; col. 3, line 46) connected to the inlet and outlet sides of a gain-flattening filter (fig. 2, #130 and #180). It would have been obvious to one of ordinary skill (e.g., an optical engineer) in the art at the time the invention was made to place the filter serially between rare-earth doped fibers for the advantage of an optical node with a flat gain profile.

7. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellman (US 2003/0185513 filed Mar. 26, 2002) in view of Payne (US 5,260,823 published Nov. 9, 1993).

Hellman does not specifically disclose frequency division multiplexing prior to wavelength division multiplexing. However, Payne teaches that a gain-flattening filter between two EDFs (fig. 5) is well suited for FDMing or WDMing (col. 4, lines 20-25). It would have been obvious to one of ordinary skill (e.g., an optical engineer) in the art at the time the invention was made to FDM prior to WDMing for the advantage of an EDF with a flat spectral gain.

Drawings

8. The drawings are objected to because the lines are uneven and difficult to read. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.


Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bailey, Bartolini, Cai, Cheng, Fukushima, Gao, Kelkar, Kelly, Kohnke, Mizuno, Mori, Naganuma, Shigehara, Taga, Watanabe, Wu, and Zimmerman disclose gain flattening filters with optical amplifiers.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deandra M. Hughes whose telephone number is 571-272-6982. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deandra M Hughes
Examiner
Art Unit 3663